To: Eugenia Naranjo/R2/USEPA/US@EPA[]
Cc: "Canizares, Rafael" [RCanizares@moffattnichol.com]
From: "Mathew, Rooni"
Sent: Tue 11/6/2012 2:34:15 PM
Subject: RE: Settling column
Merckelbach 2004a.pdf
dankers-wint.pdf

Here you go. I'll call Ed later today.

For settling velocity - see Dankers
For consolidaiotn - see Mercelbach

Rafa - attached are a couple of papers I received from Han on what he is planning to do with the settling column data.

-----Original Message-----
From: Naranjo.Eugenia@epamail.epa.gov [mailto:Naranjo.Eugenia@epamail.epa.gov]
Sent: Tuesday, November 06, 2012 9:25 AM
To: Mathew, Rooni
Subject: RE: Settling column

OK, maybe you should give Ed a call or Jason -I have no problem win that (541) 740-3715 Can you share Han's papers with us?
Thx.

Eugenia Naranjo
United States Environmental Protection Agency
290 Broadway
New York, NY 10007-1866
212-637-3467
Naranjo.Eugenia@epa.gov

-----"Mathew, Rooni" <RMathew@moffattnichol.com> wrote: -----

==========
To: Eugenia Naranjo/R2/USEPA/US@EPA
From: "Mathew, Rooni" <RMathew@moffattnichol.com>
Date: 11/06/2012 09:09AM
Subject: RE: Settling column
==========
No, I don't think he is expecting a 100 cores! At this point we should stick with your initial plan - the base concentrations at locations 3 and 8, a different concentration at location 8, and if you have enough sediments an additional concentration at location 3.

Given the solids concentrations we're talking about - 10s to ~100 g/L, will it affect the analytical procedures for measuring the initial solids concentration in the slurry?

He sent me a couple of papers that show what he is planning to do with the data. I'll start working my

way through them. Papers that actually have a lot of equations in them to work through! Time consuming....

-----Original Message-----
From: Naranjo.Eugenia@epamail.epa.gov [mailto:Naranjo.Eugenia@epamail.epa.gov]
Sent: Monday, November 05, 2012 11:32 PM
To: Mathew, Rooni
Subject: RE: Settling column

4 different conc?? 100 cores?

Eugenia Naranjo
United States Environmental Protection Agency
290 Broadway
New York, NY 10007-1866
212-637-3467
Naranjo.Eugenia@epa.gov

-----"Mathew, Rooni" <RMathew@moffattnichol.com> wrote: -----

==========
To: Eugenia Naranjo/R2/USEPA/US@EPA
From: "Mathew, Rooni" <RMathew@moffattnichol.com>
Date: 11/05/2012 10:09PM
Subject: RE: Settling column
==========
Thanks.

I heard from Han. He recommended the following initial concentrations 10, 30, 60 & 100 g/l. Assuming initial dry density of 500 g/L, the dilution ratios work out to 1:49, 1:15.7, 1:7.3, and 1:4 (sediment:water) respectively.

I'd imagine at a certain point you would be limited by the height of the settling column - to get a 20cm bed after settling you would need a ~10 m column!

Let me know if you need anything else.
Rooni.

From: Naranjo.Eugenia@epamail.epa.gov [mailto:Naranjo.Eugenia@epamail.epa.gov]
Sent: Monday, November 05, 2012 3:08 PM
To: Mathew, Rooni
Subject: RE: Settling column

Hotel in Santa Cruz: Bay Front Inn bayfrontinnsc,com

From: "Mathew, Rooni" <RMathew@moffattnichol.com<mailto:RMathew@moffattnichol.com>>
To: Eugenia Naranjo/R2/USEPA/US@EPA
Date: 11/05/2012 12:54 PM
Subject: RE: Settling column

So to verify, will you be able to do potentially 3 different concentrations? The base concentrations at locations 3 and 8, a different concentration at location 8, and if you have enough sediments an additional concentration at location 3?
Rooni.

From: Naranjo.Eugenia@epamail.epa.gov<mailto:Naranjo.Eugenia@epamail.epa.gov>
[mailto:Naranjo.Eugenia@epamail.epa.gov]
Sent: Monday, November 05, 2012 12:37 PM
To: Mathew, Rooni
Subject: RE: Settling column

Thank you, let me know what Han suggests. The commute should get better as the days go by... I may go to CA, the problem that I have is that our building is closed so nobody can make my travel arrangements/approval... Go figure!

From: "Mathew, Rooni" <RMathew@moffattnichol.com<mailto:RMathew@moffattnichol.com>>
To: Eugenia Naranjo/R2/USEPA/US@EPA
Date: 11/05/2012 12:33 PM
Subject: RE: Settling column

Hi Eugenia,
I'll check with Han.

I'm not sure yet if I can make it to CA next week, it depends on how the commute develops over the next few days. It took my wife about 2 hours to get to work on the bus today, and if that is the situation next week as well, she will have a tough time with the drop-off and pick-up from school at 8.30am and 5.30pm.
Rooni.

From: Naranjo.Eugenia@epamail.epa.gov<mailto:Naranjo.Eugenia@epamail.epa.gov>
[mailto:Naranjo.Eugenia@epamail.epa.gov]
Sent: Sunday, November 04, 2012 6:49 PM
To: Mathew, Rooni
Subject: Re: Settling column

I can't remember whether I got back to you but I have a couple of questions for Han regarding 3. We are looking into doing the duplicate at a different dilution/concentration. At the site, we did a VERY ball park consolidation test dry run with leftover sediment from the tests.
We did a mix of APPROX 25% sediment and 75% water, the ballpark mixture consolidated into a 15-20 cm bed, but to run 5 intervals through SEDFlume we'll need more than that.
Also as per Ed's suggestion we took enough sediment samples at location 8 to do a dup, although I would like to do a duplicate at a different concentration at location 3 as well -provided we have enough sed.

Can you check with him:
- whether he has any suggestions for the seds/water mixture e.g. 35-40% seds and 65-60% water
- whether he would suggest doing an additional duplicate at location 3 with a different concentration

Let me know if you prefer to talk. It's good that you'll be at the lab!

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-----"Mathew, Rooni" <RMathew@moffattnichol.com<mailto:RMathew@moffattnichol.com>> wrote: -----
To: Eugenia Naranjo/R2/USEPA/US@EPA
From: "Mathew, Rooni" <RMathew@moffattnichol.com<mailto:RMathew@moffattnichol.com>>
Date: 10/24/2012 05:16PM
Subject: Settling column
Eugenia,
Below are some thoughts we'd received from Han on the consolidation tests

1. When carrying out consolidation experiments, make sure water with Bay's salinity is used, and measure the initial concentration of the fine sediment suspension,

2. During the consolidation experiments, monitor the lowering of the interface; in the hindered settling phase (the first hour or so) frequently, then less frequent.

3. Do consolidation experiments at a series of initial concentrations, and make sure that consolidation is complete.

I would imagine that SEI is currently planning only to do 1 and 2 not 3? Could you verify this please? I'll check with Han on the significance of the 3rd. For 2, I'll check with him on the exact interval and get back to you. Hopefully tomorrow.
Rooni.